

**SYSTEM AND METHOD TO VERIFY  
AVAILABILITY OF A BACK-UP SECURE TUNNEL  
ABSTRACT OF THE INVENTION**

A method and system for verifying the availability of a back-up virtual private network IP security (IPSec) tunnel between two network elements by originating a plurality of connection tests between the network elements. The first network element transmits a backup tunnel verification test message to the second network element over the back-up secure tunnel upon receipt of a backup tunnel verification test command. The back-up secure tunnel includes two unidirectional tunnels. The second network element receives the back-up tunnel verification test message over the first back-up unidirectional secure tunnel and transmits a response back to the first network element over the second back-up unidirectional secure tunnel. The number of failures to respond by the second network element to the backup tunnel verification tests performed during an active verification period specified in the backup tunnel verification test command are reported back to the source that initiated the back-up secure tunnel verification test.